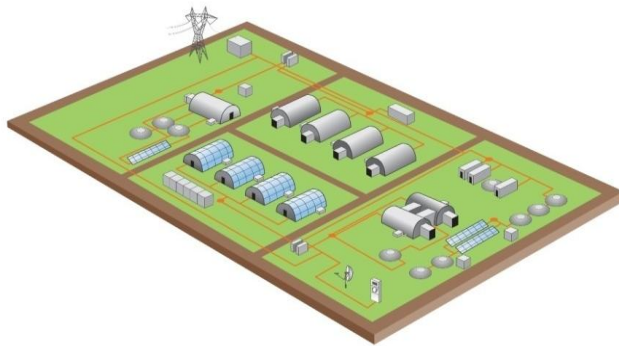




## Smart and Green Energy for Base Camps (SAGE)



**Customers:** ARCENT and USFOR-A Engineers  
**Stakeholders :** PM-MEP, PM Force Provider, USACE

### DESCRIPTION

SAGE is an LIA/G4 demonstration of a COTS-based smart micro-grid design/standard for medium-sized Forward Operating Base (FOB) camps within the operational camp spectrum (scalable within the 150 -2,400 person range). The smart micro-grid represents an integrated, open-source approach for improving the generation, storage, transmission, distribution and consumption of electrical power at deployed locations, which typically rely on generator sets for electricity. The smart micro-grid will combine existing COTS technologies (e.g., communications and control systems, energy storage, energy-efficient structures and renewable sources) into an intelligent power management system that will reduce fuel consumption by ~30-60% versus the current baseline. Deliverables are design specifications and contract language suitable for LOGCAP or other contract vehicles.

### MILESTONES

- |                                       |          |
|---------------------------------------|----------|
| ✓ Brief G-4                           | 3 Aug 10 |
| ✓ Begin Phase I: Design (6 months)    | Sep 10   |
| ✓ Conducted User Conference           | 3 Dec 10 |
| □ Begin Phase II: Build & Demonstrate | Aug 11   |
| □ Complete System Assembly            | Sep 11   |
| □ Begin Demo                          | Oct 11   |
| □ Initial Testing & Data Collection   | Jan 12   |
| □ Initial Data Analysis               | Mar 12   |

### STATUS

- Efforts to Date:
  - ✓ User Conference Executed
  - ✓ Initial base camp design completed
  - ✓ Site selection completed
- Current Efforts:
  - Purchase and integrate H/W & S/W
  - Setup camp
  - Collect actual usage data for analysis (BCA/ROI)